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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/522,979      | 02/02/2005  | Shu Guo              | Q86012              | 4431             |

23373 7590 08/10/2007  
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| EXAMINER |
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SELLERS, ROBERT E

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1712

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| MAIL DATE | DELIVERY MODE |
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08/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                   |  |
|------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/522,979 | <b>Applicant(s)</b><br>GUO ET AL. |  |
|                              | <b>Examiner</b><br>Robert Sellers    | <b>Art Unit</b><br>1712           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/2/2005 &amp; 3/9/2005</u> | 6) <input type="checkbox"/> Other: _____  |

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1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-5, drawn to a polycarboxylic acid resin.

Group II, claims 6 and 8, drawn to a polycarboxylic acid resin composition comprising a polycarboxylic acid resin, reactive diluent and sealant.

Group III, claim 7, drawn to a polycarboxylic acid resin composition comprising a polycarboxylic acid resin, reactive diluent, sealant and photopolymerization initiator.

2. The inventions listed as Groups I, II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature. The special technical feature is the polycarboxylic acid resin obtained by reacting the reaction product of an epoxy resin, dibasic acid and ethylenically unsaturated monocarboxylic acid with a polybasic acid anhydride.

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3. Japanese Patent No. 2002-173518 (abstracts) discloses an energy ray-curable resin derived from the reaction of an epoxy resin, a (meth)acryloyl group-containing monocarboxylic acid such as (meth)acrylic acid (translation, page 4, paragraph 17), a dicarboxylic acid including that containing a (meth)acryloyl group such as itaconic acid (page 6, paragraph 27) to form a hydroxyl-containing modified epoxy acrylate which is reacted with an anhydride. Accordingly, the special technical feature does not make a contribution over the prior art, thereby validating a holding of lack of unity.
4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.  
  
The species are as follows:
  - (a) The epoxy resins such as the bisphenol A epoxy resin used in Synthesis Example 1 on page 17 of the specification.
  - (b) The dibasic acids such as the itaconic acid of claim 5 also employed in Synthesis Example 1.
  - (c) The ethylenically unsaturated monocarboxylic acids such as the acrylic acid of claim 5 utilized in Synthesis Example 1.
  - (d) The polybasic acid anhydrides such as the tetrahydrophthalic anhydride of Synthesis Example 1.

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Contingent upon the election of Group II, items (a), (b), (c) and (d) hereinabove and:

(g) The reactive diluents such as the trimethylolpropane triacrylate of Examples 1-8 on page 24 described on page 14, the third paragraph.

(h) The sealants such as the 1,3,5-triglycidyl isocyanurate of Examples 1-8 as disclosed on page 15, the third paragraph.

Contingent upon the election of Group III, items (a), (b), (c), (d), (g) and (h) hereinabove and:

(i) The photopolymerization initiators set forth in the paragraph bridging pages 15-16. Examples 1-8 do not contain a photopolymerization initiator.

Applicant is required, in reply to this action, to elect a single species ***within each of items (a), (b), (c) and (d), as well as items (g), (h) and (i) if appropriate***, to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species (MPEP § 809.02(a)).

Claims 1-8 are generic.

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5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical feature for the reasons espoused with respect to the holding of lack of unity hereinabove.

A telephone call was made to Alan J. Kasper on May 18, 2007 to request an oral election to the above restriction and election of species requirement, but did not result in elections being made.

The reply to this requirement to be complete must include (i) an election of an invention and species to be examined even though the requirement is traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention and species.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should the traverse be on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if one of the inventions or species is found to be unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention or species.

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Upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application.

Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Robert Sellers/

Robert Sellers  
Primary Examiner  
Art Unit 1712

rs  
8/7/2007